

Title (en)
SYSTEM FOR PRODUCING DIHYDROGEN, AND ASSOCIATED METHOD

Title (de)
SYSTEM ZUR ERZEUGUNG VON DIHYDROGEN UND ZUGEHÖRIGES VERFAHREN

Title (fr)
SYSTÈME DE PRODUCTION DE DIHYDROGÈNE, ET PROCÉDÉ ASSOCIÉ

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Application
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Abstract (en)
[origin: WO2017118812A1] The invention relates to a system (1) for producing dihydrogen, comprising: an electrolyser (2) suitable for performing water electrolysis and for producing dioxygen and dihydrogen; a dihydrogen compressor (3); a dihydrogen cooler (4); a main circuit (10) of dihydrogen from the electrolyser (2), on which at least the compressor (3) and the cooler (4) are successively arranged; and an auxiliary circuit (20) of dioxygen and residual water vapour from the electrolyser (2), the system being characterised in that it also includes: a condenser of said residual steam; the cooler (4) comprises an expander, an exchanger and a heat-storage module; the condenser, the expander and the exchanger being successively arranged on the auxiliary circuit (20), the exchanger establishing a heat exchange between the dihydrogen compressed by the compressor (3), the dioxygen expanded by the expander and the heat-storage module.

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